

PRESENTED AT ECOSYSTEM-BASED DECISION SUPPORT TOOLS FOR FISHERIES MANAGEMENT

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### MAFMC FMPs

- Surfclam and Ocean Quahog (1977)
- Atlantic Mackerel, Squid, Butterfish (1978)
- Summer Flounder (1988), Scup (1996), Black Sea Bass (1996)
- Bluefish (1990)
- Dogfish (1999)
- Tilefish (2001)

# FISHERY ECOSYSTEM PLAN -- OR CUMULATIVE IMPACTS

- Target Fishery and Resources
- Non-Target Fisheries or Bycatch
- Habitat
- Protected Resources (PET)
- Communities -- Socioeconomics

# Surfclam and Ocean Quahog

- Not overfished and overfishing not occurring
- Gear 100% clam dredges
- Minimal and Temporary gear impacts
- Minimal bycatch
- Long-lived (200+ years)
- Inshore/southern end of range may be impacted by global warming
- Larval settlement dependent on density, predators, environmental and oceanographic

# Atlantic Mackerel, *Loligo*, *Illex*, and Butterfish

- Not overfished and overfishing is not occurring
- Gear bottom and mid-water trawls
- Bycatch issues in Loligo/butterfish for scup
- Marine mammal issues in all 4 fisheries
- Prey for MM, HMS, most fishes, and themselves
- Squid annual species and recruitment likely highly dependent on environmental factors

### Summer Flounder, Scup, and Black Sea Bass

- None Overfished
- Overfishing occurring with SF, and unknown on other two species
- Gear SF (95% BT), Scup (75% BT, 10% traps), BSB (45% traps, 40% BT, 10% H)
- SF has HAPC which are SAV beds
- All three are commercial and recreational fisheries
- Limited encounters with MM and ES

### Bluefish

- Overfished but overfishing is not occurring
- Gear gill net 50%, bottom trawl 20%
- EFH and social impacts disapproved
- Recreational (80%) vs. commercial (20%)
- Significant biomass decline during last decade, belief competition with striped bass

## Dogfish

- Overfished but overfishing is not occurring
- Gear GN 75%, BT 15%, H&L 10%
- Largest biomass in Northeast, but declining
- Bycatch only fishery now
- Problems few adult females, practically no recruitment for last 7 years, pup survival of small females very low

### Tilefish

- Overfished and overfishing occurring
- Gear longline 95%, bottom trawl 5%
- 10 year rebuilding plan with constant quota
- Structure oriented species
- HAPC but no gear restrictions
- New assessment 2005, industry wants ITQs

# Current FMP Goals Rebuild Tilefish — OY Obtained

- Prevent overfishing and rebuild to biomass that supports MSY
- Prevent overcapitalization and limit new entrants
- Identify and describe essential tilefish habitat
- Collect necessary data to develop, monitor, and assess biological, economic, and social impacts of management measures

## Five Pillars for Ecosystem Plan Target Fishery and Resources

- Survey abundance and distribution over time
- Commercial catch & effort by gear over time
- Recreational catch & effort over time
- Biological data, especially food habits
- Oceanographic water temp, DO, productivity, distribution of plankton over time
- Identification of limiting factors or bottlenecks

## Non-Target or Bycatch

- Survey abundance and distribution over time
- Commercial catch & effort by gear over time
- Recreational catch & effort over time
- Biological data, especially food habits
- Oceanographic water temp, DO, productivity, distribution of plankton over time
- VTR data needs corroboration and therefore need more observers

### Habitat

- Bottom sediments
- Marine sanctuaries, existing MPAs, closed areas, artificial reefs
- HAPCs, SAV beds
- Survey and commercial hang downs
- Survey distributions of all species for all life stages by time
- Other anthropogenic impacts
- Level 3 and 4 EFH data relating productivity of the resource to specific habitat

#### Protected Resources

- Species distribution and migrations over time for marine mammals, turtles, birds and endangered or threatened fishes
- Identification of limiting factors for populations and their migrations

#### Socioeconomics

- Coastal development
- Coastal fishing communities
- Revenue, profit, and employment
- Other anthropogenic impacts power plants, ports, beach replenishments, nutrient loadings, coastal wetlands losses, fish tissue contaminations, beach closures, etc.
- Stakeholder preferences

## SUMMARY/SERMONETTE

- Single species management has worked for MAFMC because it has been quota based and limited access in overcapitalized fisheries – adaptive
- "Crisis" (necessary for quantum change) does not exist and majority of Congressional perception
- Recognize that fishery management goals/objectives based on more than MSFMCA – Satisficing for decades
- National Standards 1, 2, 3, 5, 8 and 9, along with EFH
- Recognize process needs to be more evolutionary than revolutionary and evolving more comprehensive
- Ecosystem models will be wonderful tools, especially in identifying bottlenecks and trade offs

## SUMMARY (CONT)

- Concern always of paralysis by analysis --KISS
- Need FMCs as stakeholders and full partners in collaborative and iterative process
- Must avoid EFH type fiasco with 2 year implementation
- Objective setting will be the key
- How do we move forward SARC and surveys
- Need good public relations. "We have been doing ecosystem management. We are doing it better today than we did 5 years ago, and we will be doing it better in the next 5 years."

  Sissenwine 2005